PI TAU SIGMA ANNUAL CHAPTER REPORT

2014-2015

Cal Poly Pomona – Delta Beta Chapter

FOREWORD

The academic year of 2014-2015 proved to be exciting and challenging for the Delta Beta chapter. The executive board worked tirelessly to continue and improve the legacy and prestige of Pi Tau Sigma on campus. The primary and overarching goal for this year was to increase member participation, garnering loyalty and pride for the honor society. Retaining members at Cal Poly Pomona is difficult because it is largely a commuter campus. Other objectives for the chapter included the provision of facility tours, weekly tutoring sessions, and the annual Mechanical Engineering department banquet. All accomplishments of the Delta Beta chapter could not have been possible without the efforts of the following members of the executive board and the club advisor:

President	Joshua Cheng
Vice President	Menooa Zhorabian
Treasurer	Colin Danahy
Secretary	Kevin Orozco
Events Coordinator	Shin Dilpare
Engineering Council Representative	Kylie Webster
Advisor	Professor David L. Miller

INITIATION

Before the beginning of the school year, the initiation process was structured and refined. A brand new website was created and replaced the old and antiquated website in order to provide members and initiates quick access to the most important information pertaining to the club's activities. Frequent meetings were held to discuss the activities regarding initiation, as well as to discuss the master plan for the whole year. The fundamental qualifications to receive a bid to initiate remained the same:

- Top 35% of Senior Class / Top 25% of Junior Class
- 3.0 Overall GPA Minimum
- 2.7 ME GPA Minimum (core units only, excludes General Education)
- 40 ME Units Completed Minimum
- 36 Units Completed at Cal Poly Pomona

The last two hard requirements were implemented to ensure a form of residency at the college, since Junior and Senior status can be achieved in other ways without going through the

curriculum at Cal Poly Pomona (transfer students, AP credit, etc.). Completion of the following tasks throughout the course of a quarter were requirements to finish initiation:

- Obtain Signatures from Ten Active Pi Tau Sigma Members (2 Professors, 3 Officers Mandatory)
- Payment of Lifetime Membership Dues
- Complete 5 Service Hours
- Complete 3 Networking Hours
- Attend Initiation Ceremony

Historically, networking hours were not part of the initiation, but were added in an effort to increase social interaction between the incoming members, creating stronger bonds with Pi Tau Sigma so that they would return and contribute to the future of the club. For both quarters of initiation, this requirement was treated with flexibility, and those who had difficulty acquiring them were highly encouraged to seek help from officers. Going on a facility tour counted as 2 hours, regardless of the duration of the tour; going to a company info session counted as 1 hour, regardless of duration; bowling nights were held every odd Thursday night; fundraisers at local restaurants were planned mainly for the purpose of networking. Both community service opportunities and networking opportunities were sought and provided by the executive board to further aid the initiates.

Pi Tau Sigma 2014-2015 New Members	
Fall 2014	Spring 2015
Alyssa Endo	Cody Bills
Juan Carlos Miranda	Eric Cruz
Emilio Mercado	Brijesh Verma
Mike Curtis	Marcelo Murcia
Jim Amani	Richard Lee
Joel Estby	Aaron McCain
Danny Chon	Andres Palomino
Daniel Martinez Gamboa	Miguel Cortes
Phoo Khine	Raymond Yip
David Gomez	Rachel Irwin
Sevan Hovsepian	Andrew Simecka
Kyle Marty	Yovani Esperon

Initiation meetings were held bi-monthly, and were typically on the odd Thursday of the 10 week quarter system at Cal Poly Pomona. There were 4 meetings total before the ceremony for each quarter that initiation was held (Fall and Spring). The first meeting was mainly an introduction of what Pi Tau Sigma was about, and initiate sheets were passed out so that potential members could begin completing their tasks. Human bingo was the main event for the second meeting, allowing those in attendance to meet new people and engage in a social activity. During the third meeting, a friendly competition with an egg drop contest strengthened new bonds and encouraged the initiates to work together to achieve a common goal. For the last meeting, pizza

was provided free of charge to the initiates, and pros and cons of the initiation process were discussed so that future activities could enhance the experience of candidates, strengthening their connection with Pi Tau Sigma. At every meeting, current and upcoming events were always announced, and help was always offered for any aspect of the process. The initiation ceremonies were carried out professionally and successfully, and new members were treated out to eat afterwards. Combining the fall and spring quarter initiations, the Delta Beta chapter successfully inducted 24 new members.

Figure 1: Fall 2014 Initiates

Figure 2: Spring 2015 Initiates

Figure 3: Initiation Ceremony Dinner

CHAPTER ACTIVITIES

Facility Tours

Traditionally, tours at different engineering companies are planned so that Pi Tau Sigma members can explore the possibilities that the industry may offer, as well as create possible job opportunities if they are available. They have a first-hand experience of real life applications in engineering, which will further aid their pursuit of their desired career paths. There is typically one tour per quarter.

Boeing El Segundo
The first tour of the year was planned during the summer, and members were able to see the Boeing satellite production facility in El Segundo. The sheer size of one satellite was incredibly impressive, and members were able to see vibration tables used to simulate take-off, some massive anechoic chambers, and heat exchangers capable of reaching immensely high temperatures.

Applied Medical
During the fall, members were able to see engineering being applied in the medical industry. Applied Medical designs and manufactures devices used in laparoscopic surgeries, and they aim to produce products that minimize entry wounds during surgery. The company is vertically integrated, where pretty much all processes from design to production are done in-house. Members were exposed to processes involving plastic and rubber, and the tour guides provided an extensive walk through of the entire life cycle of a product.

Figure 4: Applied Medical Tour

Spadra Energy Plant
Due to unforeseen circumstances, there was no tour during winter quarter. To compensate, two tours were scheduled during the spring quarter. The energy sector was explored through Spadra Energy Plant, located just a few minutes away from Cal Poly Pomona. It is a conventional Rankine cycle steam power plant that converts gas into energy.

Northrop Grumman Space Park and El Segundo
The second tour during the spring quarter was held at Northrop Grumman. Members learned about the history of the company in a brand new section developed specifically for the purpose of educating the public about their past achievements. A few people were even fortunate enough to try a flight simulator! Afterwards, the group was brought to the El Segundo site. The tour guides walked the group through the process of making composites, which included one of the largest thermal ovens on the west coast. Members were able to see first-hand the assembly line for the tail end of one of the fighter jets in service.

Social Events
In an effort to create stronger ties with current and incoming members, a few social events were planned. Bowling nights were held on odd Thursday nights in a 10 week quarter system at Oak

Tree Lanes, a bowling alley that is 5 minutes away from school. Prices were cheap on Thursday nights, and members enjoyed some friendly competition and good company. Fundraisers were also planned, and they turned into social events where members sat together and indulged in conversation and delicious food. The two local restaurants that hosted the fundraisers were Cha For Tea and Panda Express.

Figure 5: Fundraising Flyers

Pi Tau Sigma 2015 National Convention

Figure 6: Delta Beta Chapter at Convention

This year Cal Poly Pomona was able to send 5 members to the national convention in Urbana, Illinois. It was an amazing experience for all who attended, being able to network with peers from all over the country. The group collaborated with other chapters in sharing old ideas and traditions while developing plans for the future. Seeing the passion and success of other chapters instilled motivation to improve the status and success of the Delta Beta chapter.

Figure 7: Group photo with San Jose State

Figure 8: Group photo with Hawaii

CAMPUS INVOLVEMENT

Tutoring/Advising

As always, Pi Tau Sigma hosted weekly tutoring and advising sessions during University Hour, an hour when there is no class being held. Most subjects that were tutored were for the fundamental classes such as statics or dynamics, but all were welcome and officers did their best to answer any and all questions. Students also came to be advised about planning their course paths, calling on the knowledge of the veteran students in the program.

Robot Rally

The Robot Rally is an event hosted by the mechanical engineering department annually, which invites local schools to participate in various competitions involving Lego systems and robotics. Students of all ages flood the engineering meadow to win in competitions such as the Impromptu Obstacle Challenge, Sumo Robot Challenge, Fast Line Following Challenge, and the Teamwork Challenge.

44th Annual Mechanical Engineering Department Banquet

Every year, Pi Tau Sigma plans and hosts a banquet for the mechanical engineering department and its students to celebrate the achievements and successes of students and professors alike. In recent years, ASME was enlisted to support the event because of the amount of work needed to host an event for a program as big as the Cal Poly Pomona mechanical engineering program. Mr. James Chew was invited to impart his massive bank of knowledge and wisdom to students who wonder about the most important things to remember when they go out into the real world. He is currently the chairman of the National Defense Industry Association for the Science and Engineering Technology Division, and has 31 years of experience in the aerospace, automotive, stored energy, and education fields. Professors who excelled in the past year were recognized, and those involved in helping plan the banquet were appreciated. Other festivities for the night included a pasta dinner with hors d'oeuvres and dessert, a photo booth, a dance floor, and a prize raffle. The new Pi Tau Sigma Delta Beta chapter executive board were introduced, and the outgoing officers were recognized and appreciated for their service.

Figure 9: 2014-2015 Officers

Figure 10: ME Department Banquet

FUTURE GOALS/CONCLUCIONS

One of the biggest goals will still be to improve the connections and member base between Pi Tau Sigma and its members. The vision is to be able to host a national convention for Pi Tau Sigma and to contend for the awards for the best chapter. The minimum expectation for involvement of the chapter should be to maintain tutoring services and facility tours every quarter. The Delta Beta chapter has seen stupendous growth in recent years, and the reputation of Pi Tau Sigma is only getting better. With the implementation of networking hours, more students have come back and asked to be more involved with the club. It has been an incredible year for this chapter, and it will continue to grow and mature to become one of the greatest clubs to be a part of at Cal Poly Pomona.